

**REMARKS**

Claims 1-20 are all the claims pending in the application. Claims 1, 8, and 15 are independent claims.

**Statement of Substance of Interview**

Applicant's representative respectfully thanks the Examiner and Supervisor for the courtesies extended to Applicant's representative during the personal interview on April 5, 2007. During this interview, independent claims 1, 8, and 15 and the primary reference JP 2001-076677 were discussed.

Applicant's representative believes that this amendment is consistent with this discussion regarding the recited feature of a first light blocking portion and its structural relationship with the ceramic light emitting tube.

**Claim Rejections Under 35 U.S.C. § 103**

Claims 1-20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Tokuichi et al. (JP 2001-076677) ("JP '677") in view of *newly cited* Tsuda et al. (US 2002/0130601).

**Independent Claims 1 and 15**

With respect to independent claims 1 and 15, Applicant has amended these claims to emphasize that that light emitting tube (or means for positioning a hot zone) is a ceramic light emitting tube. This amendment does not change the scope of subject matter claimed because the claim already recites that the light emitting tube is ceramic, straight, and cylindrical.

Applicant respectfully requests that the Examiner withdraw the rejection of independent claims 1 and 15 at least because there is no combination of JP '677 and Tsuda that would

reasonably teach or suggest the claimed discharge bulb including a strip-shaped first light blocking portion (or means for positioning a hot zone) being provided as a portion of said *ceramic* light emitting tube or being provided radially outside of said *ceramic* light emitting tube.

The discharge bulb of claim 1 addresses a problem in prior art discharge bulbs in which a light blocking seal, like that of JP '677, is provided radially inside a *ceramic* light emitting tube. Specifically, if a light blocking seal is provided *radially inside* of the ceramic light emitting tube, a small amount of light will still be guided to the longitudinal ends of the ceramic emitting tube due to the light guiding function of the ceramic tube.<sup>1</sup> This small amount of light will form an extraneous dull glowing light, for example Pb2 shown in FIG. 18.<sup>2</sup> In contrast, if a light blocking portion is provided *as a portion of* the ceramic light emitting tube or provided *radially outside of* the ceramic light emitting tube, then this dull glowing light can be prevented.

In the previous response, Applicant amended claims 1 and 15 and argued that JP '677 does not disclose the claimed discharge bulb in which the light blocking portion (or means for positioning a hot zone) is either provided *as a portion of* the light emitting tube<sup>3</sup> or provided *radially outside of* the light emitting tube.<sup>4</sup> Specifically, referring to FIG. 1 of JP '677, Applicant argued that is the seal 6, which the Examiner asserts as corresponding to the "light blocking portion" (or means for positioning a hot zone), is instead provided *inside of* the ceramic tube 2.<sup>5</sup>

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<sup>1</sup> See Original Specification at the first full paragraph of page 5.

<sup>2</sup> See Original Specification at Fig. 18 & second full paragraph of page 3.

<sup>3</sup> See exemplary embodiments at FIGS. 2, 10, 12, 13 of the Original Specification.

<sup>4</sup> See exemplary embodiment at FIG. 11 of the Original Specification.

<sup>5</sup> See JP '677 at FIG. 1.

However, in present Office Action, the Examiner *again* asserts that JP '677's seal portion corresponds to the "light blocking portion," specifically asserting that the molybdenum layer 11 of the seal 6 corresponds to the recited "light blocking portion." It is the Examiner's position that the providing of JP '677's molybdenum layer 11 *radially inside* of the ceramic tube 2 means that the molybdenum layer 11 is "a part of the light emitting tube."

Accordingly, Applicant has amended claims 1 and 15 to recite that said first light blocking portion (or means for positioning a hot zone) is provided as a portion of said *ceramic* light emitting tube or is provided radially outside of said *ceramic* light emitting tube. Applicant respectfully submits that JP '677 does not disclose this feature. That is, JP '677's molybdenum layer 11 is instead provided *radially inside* of the ceramic tube 2.

Moreover, Tsuda, which the Examiner relies on as showing an arc tube fixedly positioned and forwardly elongating from an insulating base, does not cure the deficiencies in JP '677 discussed above.

Accordingly, Applicant respectfully requests that the Examiner withdraw the rejection of independent claims 1 and 15.

Dependent Claims 2-7 and 16-20

Applicant also respectfully requests that the Examiner withdraw the rejection of dependent claims 2-7 and 16-20 at least because of their dependency from independent claims 1 and 15.

Applicant notes that dependent claim 2 has been amended in a manner consistent with the amendments to independent claim 1.

Independent Claim 8

With respect to independent claim 8, Applicant has amended the claim to recite that the strip-shaped first light blocking portion is provided *radially outside of said ultraviolet-ray blocking glass shroud*. This amendment is fully supported in the original specification at least by the exemplary embodiments shown in FIGS. 2 and 13 of the Original Specification.

Applicant respectfully requests that the Examiner withdraw the rejection of independent claim 8 at least because there is no combination of JP '677 and Tsuda that would reasonably teach or suggest the claimed discharge bulb including a strip-shaped first light blocking portion that is provided *radially outside of said ultraviolet-ray blocking glass shroud*.

In the previous response, Applicant noted that the Examiner's rejection was improper at least because JP '677 does not disclose an ultraviolet-ray light blocking shroud. Therefore, the Examiner looked to the ultraviolet-ray light blocking shroud of Tsuda in an attempt to make up for this deficiency.

However, claim 8 now recites that the first light blocking portion is provided *radially outside of said ultraviolet-ray blocking glass shroud*.<sup>6</sup> Neither JP '677 nor Tsuda discloses this structural relationship.

JP '677 does not disclose any ultraviolet-ray light blocking shroud.

Moreover, although Tsuda discloses an ultraviolet-ray light blocking shroud, Tsuda *does not* disclose any structure that could reasonably be considered a *strip-shaped first light blocking portion* that is 1) provided radially outside of said ultraviolet-ray blocking glass shroud, and 2) disposed at a first portion of said ceramic light emitting tube that corresponds to at least a rear

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<sup>6</sup> See Original Specification at FIG. 1.

one of the sealed end portions of said ceramic light emitting tube. For example, the gripping band 71 of Tsuda cannot correspond to the recited light blocking portion at least because it is not provided at rear sealed end of a ceramic light emitting tube. Specifically, the gripping band 71 of Tsuda is not provided at the rear pinch seal portion 13b of Tsuda's glass arc tube 11, but is instead provided at a position that is further rearward.<sup>2</sup>

Accordingly, Applicant respectfully requests that the Examiner withdraw the rejection of independent claim 8.

Dependent Claims 9-15

Applicant also respectfully requests that the Examiner withdraw the rejection of dependent claims 9-15 at least because of their dependency from independent claim 8.

Finally, Applicant notes that dependent claim 9 has been amended in a manner consistent with the amendments to independent claim 8.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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<sup>2</sup> See Tsuda at, for example, FIGS. 1, 2 & page 6, paragraph [0097].

AMENDMENT UNDER 37 C.F.R. § 1.111  
Appln. No. 10/750,858

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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